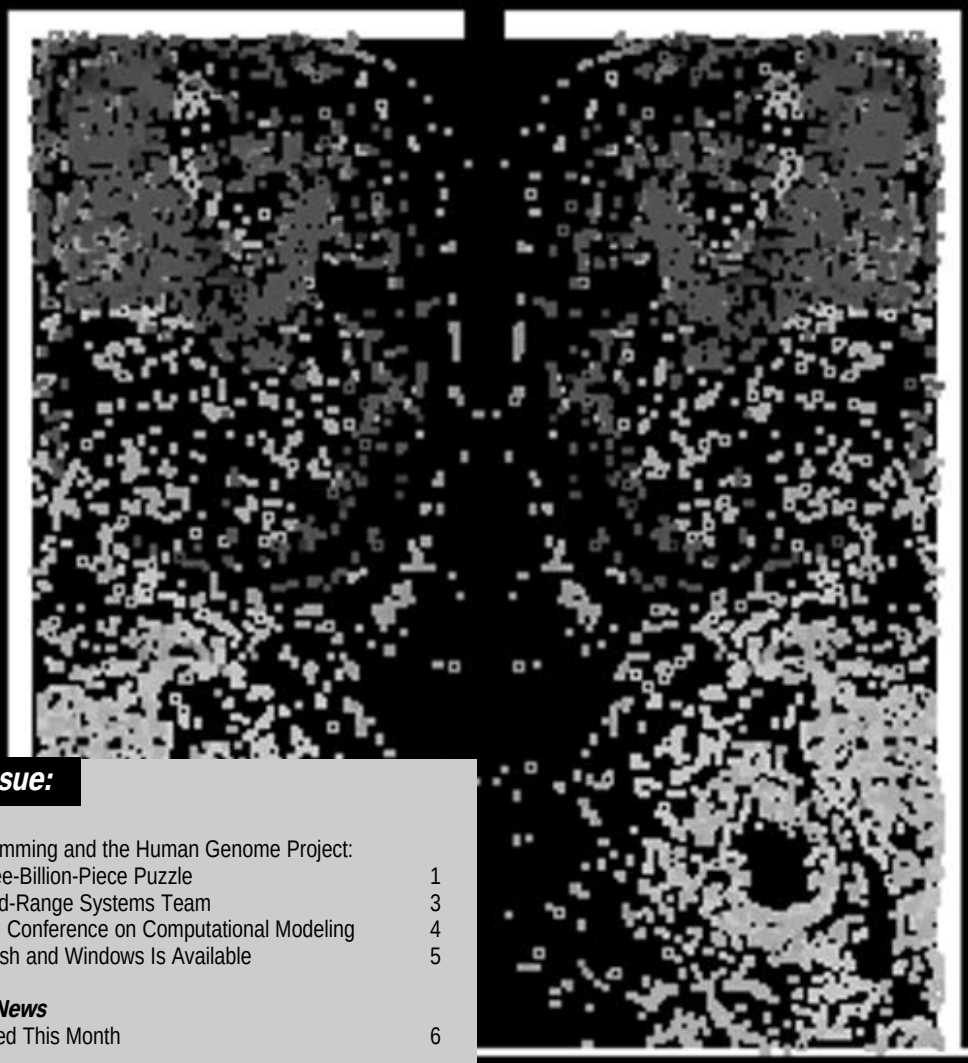
BITS

computing&communications news

JULY 1995

COMPUTING, INFORMATION, AND COMMUNICATIONS (CIC) DIVISION • LOS ALAMOS NATIONAL LABORATORY



Inside this issue:

The SHARC (S-Cubed Hydrodynamics Advanced Research Code) was used to study the potential expulsion of stored hazardous materials from an explosion in a storage facility. The work was performed in support of the Defense Nuclear Agency (DNA) Collateral Effects Program, Hazard Prediction Assessment Capabilities Program, under the direction of Major Dave Myers, DNA Shock Physics Directorate.

The calculation required 30 Cray CP hours on LANL machine Rho by Bruce Mason of S-Cubed (a division of Maxwell Laboratories). The computational results were animated with the LANL CGS (common graphics system) library by Shu Hikida of S-Cubed in cooperation with Jim Bennett and Andy Martinez of the LANL Visualization Lab. An example of these animations is shown above; sequential images are shown on the back cover.

CIC Customer Service Center . . . . . (505) 665-4444 or cichelp@lanl.gov

Integrated Computing Network (ICN)

Consulting:

Centralized scientific and engineering computing .....consult@lanl.gov or 7-5746

Lab-wide administrative and business systems.....labwide@lanl.gov or 7-9444

Passwords (required for access to ICN) .....validate@lanl.gov or 5-1805

Systems documentation (local and vendor supplied).....7-6992

Central Computing Facility (CCF) 7-4584

Advanced Computing Laboratory (ACL) 5-4530

Local Area Network (LAN) system administration services.....5-2220

Desktop Support Center (DSC) 7-4357 (7-HELP)

(PC Help for IBM and Macintosh personal computers)

For questions about PC software: PCSW-help@lanl.gov or 7-5884

For questions about PC hardware: PCHW-help@lanl.gov or 7-9372

For questions about Mac software: MacSW-help@lanl.gov or 5-1361

For questions about Mac hardware: MacHW-help@lanl.gov or 7-6459

Telephone Services Center 7-3400

(includes voice mail)

Computer training

Lab-wide systems support training.....7-9444

Computer/workstation training 7-9399

Personal computer training 7-9071

Microcomputer support facility seminars.....7-4357

(Macintosh/IBM software, lending library)

List of Forms and Schedules

Applications Programming and the Human Genome Project: Solving the Three-Billion-Piece Puzzle

By the year 2005, researchers hope to complete the three-billion-piece puzzle of humankind's genetic inheritance. This international effort, known as the Human Genome Project (HGP), is aimed at characterizing all the human genetic material—the genome—made up of approximately 3 billion base pairs of DNA distributed among 46 chromosomes. In achieving this goal, labs will focus on improving existing human genetic maps, constructing physical maps of entire chromosomes, and determining the complete sequence of DNA subunits in the human genome. The main goal of the HGP is to discover all of the 50,000–100,000 human genes and make them accessible for further study.

The complexity of this challenge has brought together researchers from a wide variety of fields working in loose collaboration across a number of labs. In addition to genetics researchers, the HGP hosts biotechnologists, robotics specialists, mathematicians, biophysicists, information specialists, and applications programmers.

Center for Human Genome Studies

LANL's Center for Human Genome Studies was established in 1988. The center's goals include assembly of complete high-resolution (0.1 million base pairs (Mb)) maps of chromosome 16 and regions of chromosome 5, studies at the molecular level of chromosome structure and function, isolation of selected genes of interest on chromosomes 5 and 16, and low-pathed DNA sequencing of chromosome 16. At over 200 Mb, chromosomes 5 and 16 make up approximately 9 percent of the total genome.

As LANL's Center for Human Genome Studies carries out its mission, CIC-12's applications programmers provide the center with the following services:

- Short-term computational development and support for large-scale physical mapping and sequencing projects; and

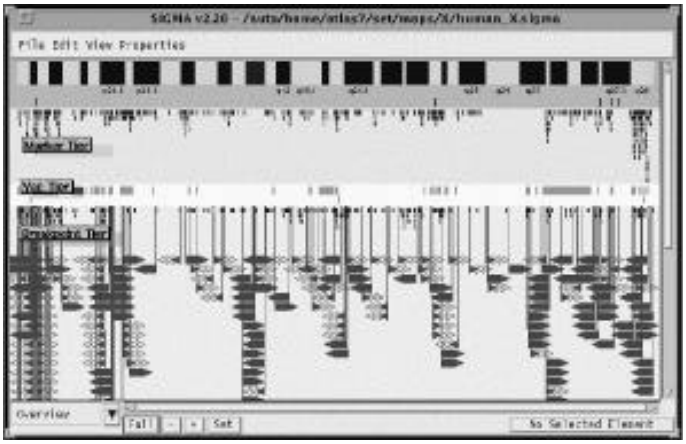
- Long-term development of tools for storage, manipulation, and analysis of genome data.

The HGP programming team: L to R, Robert Sutherland, Catherine Beauheim, Laurie McGavran, Gail Anderson, and Elaine Best.

Databases: At the Heart of the Genome Effort

The challenge of systematically creating and piecing together the clones, fragments, and small DNA segments needed to make maps of chromosomes 5 and 16 puts databases at the heart of LANL's work on the HGP. Robert Sutherland, leader of CIC-12's HGP programming team, has been providing applications, particularly databases, to support LANL's HGP since 1988. LANL's current data management system consists of two main databases: the System for Integrated Genome Map Assembly (SIGMA) and the Sybase relational Database Management System (DBMS). Information within these systems is accessible via a custom database browser and is available to the research community through LANL's Human Genome home page on the World Wide Web (WWW).

SIGMA was developed by Michael Cinkoski and Michael Bridgers (both formerly of T-10). SIGMA is a graphical database tool designed for building and viewing integrated genome maps (see image below). SIGMA consists of an object-oriented database, a graphical user interface, and map-making software. SIGMA's object-oriented database stores internal and external mapping data, whether or not the data are consistent. The graphical user interface and map-making software provide users with full-color maps of the genome to display, browse, manipulate, and print.



SIGMA Computer Screen

Using SIGMA, users can easily share data among themselves and, with just a few keystrokes, submit data to the public mapping databases. SIGMA also offers user-defined reports of data contained in its maps, scale and cross-reference information storage, and detailed sets of display settings for the map.

DBMS was developed by Robert Sutherland, the DBMS is a Sybase relational database at the heart of every system associated with the LANL genome project. DBMS is run on a network of Sun workstations. Because the Sybase software handles the network transparently, project participants feel as if all the data were stored and immediately available on their own desktops. LANL's DBMS tracks the sizes and sources of several hundred thousand fragments of DNA from chromosomes 16 and 5 and records millions of pair-wise positional relationships relevant to their physical maps.

Making the DBMS more user-friendly requires an interface software that translates between internal storage format and the users' intuitive view of the data. Robert Sutherland met this need by developing the DBMS database browser. The browser provides access to all data in the database without requiring the user to know a specialized query language. All screens, including those for clones, clone overlaps, and DNA sequences, are developed from a common template. The standard style makes the browser easy to learn.

Human Genome Home Page

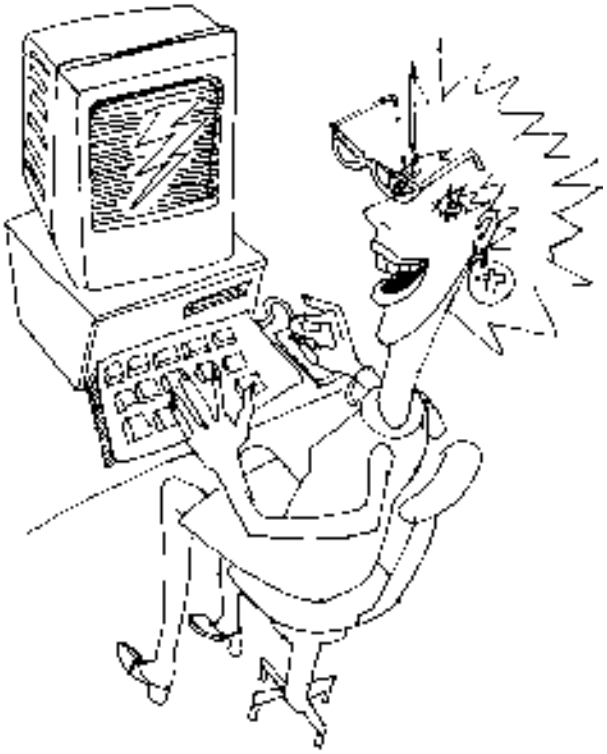
Availability of data among researchers is a key issue in the HGP. Because HGP participants are scattered throughout the world, each generally maintains his or her own separate database. Finding out which databases might contain needed data and then learning how to query the relevant databases can be a formidable task. One of the important goals for information management in the HGP is to make a large number of independently maintained databases appear to users as a single collection with a single query language.

To help meet these goals, Robert Sutherland and Laurie McGavran recently developed and added the LANL Human Genome home page to the WWW. The home page, available at http://www-ls.lanl.gov, is connected to the DBMS and offers authorized users access to the latest data in the form of flat-file bit representations or by accessing the DBMS directly. The page also provides links to the most-used external home pages for mapping, sequencing, informatics, and general biology/genetic resources.

The Human Genome Project is one of many projects at LANL that utilize the programming expertise from the Applications Programming Group (CIC-12). CIC-12 provides LANL with short- and long-term programming support that spans all platforms and technologies. The group's services include software development; database design, development, and maintenance; basic research tools and programming support; graphics coding; data visualization; and applied supercomputing. For more information, contact Gary Clark at 665-4613.

Note: This is the first in a series of three articles. Physical Mapping and DNA sequencing will follow.

Dawn Hipsh, dhipsh@lanl.gov, (505) 665-3656
Communications Arts and Services (CIC-1)



Clarification

In the June BITS article entitled "Tracking Waste Management with Integrated Databases" Bob Pierce of Hazardous and Solid Waste (ESH-19) should have been credited with developing and maintaining the Waste Profile Database. In addition, we would like to clarify that Los Alamos environmental, safety, and health requirements are based on state, local, and federal regulations including Department of Energy orders, the Resource Conservation and Recovery Act, Environmental Protection Agency requirements, the Federal Clean Air Act, and the New Mexico Air Quality Control Act, among others.

Dawn Hipsh, dhipsh@lanl.gov, (505) 665-3656
Communications Arts and Services (CIC-1)

CIC-7 Highlights Mid-Range Systems Team

This is the third in a series of articles describing how the teams that make up CIC-7 work to help CIC-7's customers. The focus of this article is the Mid-Range Systems Team, which is chartered to provide system administration support for the medium-sized computers (Vaxes, Large Sun Servers, and Wang systems) that support Laboratory-wide administrative applications.

If you use the "IA" applications (the stores, travel, payroll, or personnel systems, for example) or the POIMS or PREMISE imaging systems, you are one of our customers. It is our job to ensure that the platforms on which these applications reside are responsive, secure, and reliable, and that the integrity of their data is maintained. We are constantly looking for ways to improve the service we offer to our customers and as part of that effort we evaluate the new hardware and software technologies and products.

A recent effort that we feel has benefited our customers is the work we have done in conjunction with CIC-5 to provide connectivity from the open partition to administrative applications. For several months users who have smartcards have been able to telnet directly from their machines in the open partition to administrative applications on platforms administered by CIC-7. This capability can eliminate the need for administrative Micom ports at customer sites, as well as the necessity of using a gateway machine (such as ADGATE) for access.

Our charter also allows us to provide system administration services to other organizations. We do not support desktop systems, but we will provide resources to do system administration for large multiuser platforms. Among our current Form-B customers are ESH, BUS, and JCI. If you have any comments or questions about the service we provide or if you are interested in becoming one of our customers, please contact Jim Heid, Team Leader.

Jim Heid, heid_james@lanl.gov, (505) 667-8405
Computing Group (CIC-7)

Tri-Lab Engineering Conference on Computational Modeling

Conference Replaces CUBE Symposia

Sandia National Laboratories will play host for the first biennial Tri-Laboratory Engineering Conference on Computational Modeling, October 31 through November 2, 1995, at the Pleasanton Hilton Hotel in Pleasanton, California. Unclassified conference sessions will take place at the Pleasanton Hilton Hotel, and classified sessions will be held at Lawrence Livermore National Laboratory and Sandia National Laboratories.

The Tri-Laboratory Engineering Conference on Computational Modeling replaces the CUBE Symposium, which was held every two years between 1974 and 1992. The conference provides an opportunity for the exchange of information on recent developments in computer hardware, software, and applications by scientists and engineers from Lawrence Livermore, Los Alamos, and Sandia National Laboratories. It will benefit the participants and their respective laboratories by providing a forum for

- Interacting with peers at the other laboratories for informal idea exchanges;
- Sharing information on recently developed and current computer codes for modeling physical processes;
- Discussing solutions to engineering problems in nuclear and conventional weapons, energy programs, and industrial programs;
- Describing creative approaches to the solution of engineering problems; and
- Exploring trends in computer hardware/software and their impact on engineering simulation.

This announcement and further information on the Tri-Lab Conference is being made available on the World Wide Web. The conference home page will contain up-to-date information on the conference as it becomes available. The URL is:

http://sass577.endo.sandia.gov/trilab95

Conference Topics

Abstracts have been solicited for unclassified and classified presentations, which will be technical in nature. The topics to be covered at this Tri-Lab Conference include but are not limited to:

- Fluid Mechanics and Hydrodynamics
- Heat Transfer
- Solid and Structural Mechanics
- Electromagnetics and Radiation Transport
- Material Constitutive Behavior
- Combustion Sciences
- Mesh Generation
- Scientific Visualization
- Optimization Techniques
- Algorithms and Methods for High Performance Computing
- Computational Modeling Applications

Information for Attendees

The Tri-Laboratory Engineering Conference on Computational Modeling is an informal exchange of information among the scientists and engineers of the participating laboratories. Consequently, written papers will not be required. Only abstracts will be published, and these will be available at the conference. Presentations will be limited to 20 minutes each, including time for questions.

Important Dates

June 23	Abstracts were provided to principal contacts.
July 15	Speakers will be notified of accepted abstracts.
August 15	Registration forms will be distributed to labs.
October 1	Registration is due to Tammy Wilson, Conference Coordinator (tjwilso@sandia.gov or via the Web page).
September 30	Final day to make reservations with the conference hotels.
October 31 through November 2	Tri-Laboratory Engineering Conference on Computational Modeling.

Organizing Committee, Contacts

Steve Rottler of Sandia National Laboratories, Albuquerque, and Mel Callabresi of Sandia National Laboratories, Livermore, are the conference co-chairs. The principal contact for Los Alamos is Wilbur Birchler. For more information, please contact him at Mail Stop P946, 667-9361 (fax 667-2137), or birchler@lanl.gov. Jeff Hill (MS C331, 7-9590, jhill@lanl.gov) also serves as a Los Alamos contact.

Wilbur D. Birchler
Engineering Sciences & Applications (ESA)

PAGES for Macintosh and Windows Is Available

Access to PAGES is now available for Macintosh and Microsoft Windows platforms. The PAGES (Printing And Graphics Express Station) facility offers unusual and specialty output media, such as 35mm color film, 8.5 x 11" color paper and color transparencies, 8.5 x 11" double-sided black & white paper, and 36" color paper (ideal for poster sessions).

After an initial configuration of your Mac or PC, using PAGES is just like using your local printer. For example, you can do a complete page layout without having to worry about whether your margins are compatible with the output device. The PAGES printer characteristics are known to your application software. You also have access to the full range of PAGES options through a natural (i.e., Mac or Windows) user interface.

Macintosh Requirements

To use PAGES from your Macintosh, your Mac must be on an open network connected to the PAGES AppleTalk zone. To find out if it is, open your chooser. If you see "PAGES" in the list of zones in the lower left corner, you have access. If you don't see the PAGES zone, then either your Mac is not connected to a network or AppleTalk is not routed from your network to PAGES. Talk to your network manager if you need help.

Assuming you have network access, you must install LaserWriter 8 (you probably already have it) and a set of Postscript Printer Description (PPD) files for the PAGES devices. These are available on-line in the form of an installer program.

MS Windows Requirements

To use PAGES from your Windows PC, your PC must be on the open network with PC/TCP installed. You will have to install Adobe's Postscript printer driver for Windows and set up the PAGES devices as network printers. An archive file is available on-line.

Documentation and software for Mac and Windows are available on the Web at the following URL:

http://www.lanl.gov/computer-information/Services/print/PAGES_intro.html

Please contact the ICN Consulting Office at consult@lanl.gov or 667-5746 if you have questions.

Lee Ankeny, laa@lanl.gov, (505) 665-0195
Applications Programming (CIC-12)

Eudora Pro Released This Month

The important Eudora news concerns the change in the packaging of Eudora with the release of Eudora Pro in late July '95. QUALCOMM Incorporated (the makers of Eudora) has made the decision to tailor its sales to the consumer market. As such, Eudora Pro will include a bundle of the Eudora program as we know it including a spell-checker, a TCP/IP stack for the PC, SLIP (serial line Internet protocol) software, and an application for SLIP service with an Internet connection provider. Most Eudora users at the Lab, however, do not need to use SLIP because they have ethernet connections to the Internet. In addition, the Frontier (Frontier Technologies Corporation) TCP/IP stack for the PC, included in Eudora Pro, is currently not used much, if at all, at the Lab. So, we will soon be receiving software in the new Eudora Pro bundled package that we will not need to install. (See the "Eudora Pro" section later in this article for more information.) First, a little background on Eudora.

Eudora History

The Eudora E-mail Software was originally written for the Macintosh by Steven Dorner while he was at the University of Illinois around 1988. Eudora is based on the "post office protocol" (POP) which relies on a server to receive a person's mail and to hold it, like a post office mail box, until it is downloaded to that person's computer. Steve said the name "Eudora" came to him when he thought of the title of the short story, "Why I Live at the P.O.," written by Eudora Welty. Eudora has since become the leading SNMP (simple mail transfer protocol) e-mail program for Macs and PC's.

A few years ago, QUALCOMM (which also sells advanced communications systems including the OmniTRACS satellite-based, mobile communications system) was using the freeware Eudora for its Macs. QUALCOMM did a search for a PC-based e-mail program that it felt was as good as Eudora was on the Mac. It couldn't find one. About that time the University of Illinois had decided that it was going to cut off its support for Eudora. So, QUALCOMM made a deal with Steven Dorner (who now works at QUALCOMM), formed QUEST (QUALCOMM Enterprise Software Technology), developed a Windows version of Eudora, and started selling commercial versions of Eudora. Today QUALCOMM has expanded the popularity of Eudora and refined it on both the Mac and PC platforms.

Eudora on the Internet

QUALCOMM maintains a Web site (www.qualcomm.com) that is an exceptional resource for Eudora users. There is also an FTP site (ftp.qualcomm.com), which has all the current Eudora Lite packages as well as the updaters for their commercial packages. The current releases of Eudora should also be posted on the Lab's FTP site (ftp.lanl.gov).

Current Versions

Eudora has always been available as a freeware package on the Internet. QUALCOMM does not provide direct support for the freeware versions of Eudora, however. The current version of the freeware Eudora for the Mac is 1.5.2 (1.5.2Fat for the PowerMac) and 1.4.4 for the PC. QUALCOMM is now calling its freeware versions "Eudora Lite" to distinguish it from the commercial "Eudora Pro" versions. The current commercial version of Eudora for the Mac (and the PowerMac) is 2.1.2. Version 2.1.2 includes some bug fixes and checks the integrity of the settings file at startup. It also provides a free version of Spellswell7, version 1.0.6, which is separate from the updater itself. (The spell checker can be found on QUALCOMM's FTP site as "SpellingUpdate.hqx.") This spelling checker package is password protected. If you are an owner of Eudora 2.0 or later, you can call the CIC-2 Mac Help Desk at 5-1361 for the password. Eudora Pro for the Mac can use any "word-services-compatible" spell checking program. One other program that can allegedly be used with Eudora is the latest version of the American Heritage Dictionary for the Mac.

The current commercial version for Windows is 2.0.3. (QUALCOMM had released a 2.1 version, but later pulled it.) QUALCOMM is working on a 2.1.1 version of Eudora for Windows which will be included when Eudora Pro is released, around the end of July. (The 2.1.1 beta 4 version is available for the adventurous.) With this release, Macs and PC's will have basically the same features, including an integral spelling checker. Updaters for the commercial versions are available on QUALCOMM's Web and FTP sites. However, you must have purchased a commercial version of Eudora for these updaters to work.

Eudora Pro

Eudora Pro is the new form for what we know as Eudora. It will include the latest version of Eudora plus other bundled software. When compared to the freeware version of Eudora, "Eudora Pro" offers rules-based message filtering, "UU" encoding and decoding (useful in the UNIX world), server mail drop management, "drag and drop," on-line help, Kerberos Authentication System support, automatic attachment opening, built-in spell checking, multiple signature files, and a manual of 150 pages or so.

Also included in the Eudora Pro for Windows package is Frontier's TCP/IP network connectivity software. For the PC, the Lab currently supports FTP Software's OnNet and Trumpet WinSock, for which it has a site license. (CIC-2 is not saying that its personnel won't support Frontier's software, only that they will not have the expertise for this software that they have for the commonly-used TCP/IP stacks.) Eudora Pro for Macintosh includes Apple's MacTCP software and Hyde Park Software's MacSLIP software, a SLIP and point-to-point (PPP) software connection. (CIC-2 has previously bought a site license for this software.) Eudora Pro also includes a special offer with Portal Communications for an Internet connection. Computer users at the Lab do not need this offer, however, as Internet access is offered at the Lab.

Finally, the SRP (suggested retail price) for Eudora is going to go up from $65.00 to $89.00. Lab supplier C. J. Enterprises now charges $57.75 for Eudora. However, the Lab price for Eudora Pro may not go up that much because C. J. Enterprises will be able to buy Eudora Pro through standard distribution channels instead of directly from QUALCOMM and thus should be able to get a better price. Time will tell.

Eudora Bugs and Suggestions

The following is from QUALCOMM's Web server and explains how to submit possible Eudora bugs and suggestions users might have on how to improve Eudora:

"If you experience something you think might be a bug in Eudora, please report it by sending a message to eudora-bugs@qualcomm.com. Describe what you did, what happened, what version of Eudora you have, any error messages Eudora gave (the numbers in {}'s are especially important), what kind of computer you have, what version of System Software you're using, and anything else you think might be relevant. Everyone comes up with an idea for something they'd like their software to do differently. This is true of all applications, no less Eudora. If you come across an idea that you think might make a nice enhancement to Eudora, your input is always welcome. Please send any suggestions or requests for new features to eudora-suggest@qualcomm.com. You will receive an automated response indicating that your suggestion has been received and forwarded to our engineering staff. Unless additional information is needed, you will not receive a direct response."

Eudora-User's Mail List

QUALCOMM has a mail list called "quest_news" that periodically sends out news about Eudora. Information on how to subscribe to this mail list can be found on their Web site. There is also a LANL-specific mailing list called eudora-users@lanl.gov. This will include those who want QUALCOMM mailings and infrequent mailings on LANL-Eudora-related issues. To subscribe to this e-mail list, send an e-mail to ListManager@lanl.gov. The body of the message should contain: subscribe eudora-user.

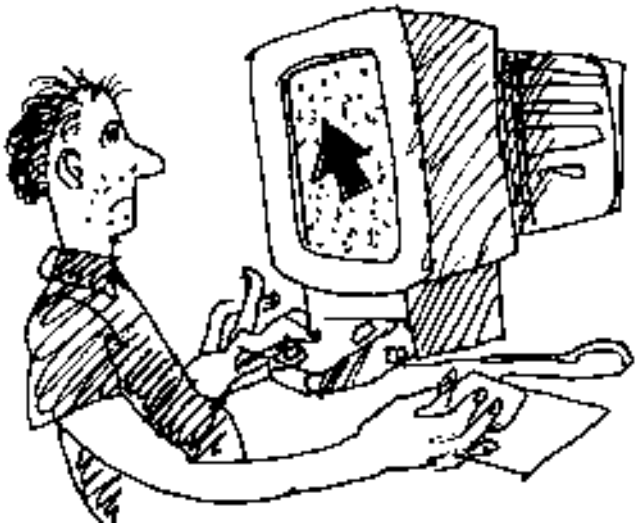
What's to Come

Folks at QUALCOMM were a bit reserved as to what is in store for Eudora, as would be expected. However, they did say that we can expect support for Windows NT and Windows 95, improvements in Eudora's security, and improvements in their overall interface.

For questions about using Eudora with your Mac or PC, call 7-HELP (7-4357). For questions about setting up Eudora POP accounts, problems with the servers, etc., call the CIC-6 Consultants at 7-5746.

John Layne, jpl@lanl.gov, (505) 665-5090
Desktop Group (CIC-2)

CFS - Recursive List



The six CFS commands LIST, GET, DELETE, REMOVE, RESCUE, and MODIFY permit the use of recursion when .R is appended to the command name. Wild cards may be used with recursive commands, and they work the same as with UNIX recursion. The commands themselves are unchanged.

A recursive request starts at the root or beginning of a branch and performs its operation on all paths in the subtree.

LIST.R currently does not function as expected. However, this capability can be achieved using wild cards:

```
list lf=po */*string* */*/*string*   (etc)
```

Note that the “p” option may be used to identify which subdirectory contained the file, while the “o” option is handy for providing “one line per file” lists.

Note that you can drop the use of the “.r” suffix to the command and just use “l” since you are defining the subdirectories.

The other .R commands function as advertised:

- GET.R, DELETE.R, and RESCUE.R, work for files at all levels of a subtree.
- MODIFY.R is performed for every node of the subtree.
- REMOVE.R removes only subdirectories that are empty and only the lowest level subdirectory of each path each time it is executed. Therefore, it may be necessary to execute REMOVE.R multiple times to prune a many-level tree.

Ted Spitzmiller, consult@lanl.gov, (505) 667-5746
Customer Service Group (CIC-6)

Advanced Computing Laboratory

When first founded, the Advanced Computing Laboratory (ACL) was intended to provide an applications-driven environment for developing leading edge computing technologies, primarily in the areas of parallel and distributed computing, scientific visualization, and high-speed networking.

In December 1991, Los Alamos National Laboratory was named as one of two national HPCRC (High-Performance Computing Research Center) sites by the Department of Energy's HPCC (high-performance computing and communications) program. The ACL is the foundation upon which this center is being built. The mission of the ACL is to facilitate solution of tomorrow's complex, interdisciplinary problems in science, industry, and defense. This will be accomplished by focusing on a few Grand Challenge-scale applications, providing a unique simulation environment and advanced computational resources, having a world-class staff, and forging links with other centers of excellence.

The resources of the ACL are available to LANL employees with a demonstrated need for the unique resources that the ACL provides. In addition, industrial collaborators may seek access through a partnership with the Laboratory, which can be arranged through the Computational Testbed for Industry (CTI). Under the auspices of the DOE Grand Challenge program, other external researchers involved in the LANL-based Grand Challenge projects may also seek access. An ACL account application form is available by sending e-mail to **proposal@acl.lanl.gov.** The only payment the ACL requests for use of its resources is a copy of any paper or other publication with ACL acknowledgment in the publication.

ACL Machine Availability

Machine Type	Operating System	Security Partition	Machine Name(s)
FPS350X (Stardent GS2000)	STELLIX	Open	stella
FPS500	FPX	Open	blanche
ibm930	AIX	Open	ibm930
Intel iWARP	SunOS	Open	iwarp
Motorola Monsoon	SVR2	Open	monsoon
SGI ONYX	SVR3	Open	black
SGI 380VGX	SVR3	Open	panda
IBM 550	AIX	Open	noid
Thinking Machines Corp. Connection Machine CM-5*	SunOS	Open	cm5-1 to cm5-8
CRI T3D*	UNICOS 80	Open	T3D
Sun 4/670	SunOS	Open	koala
Sun 4/670	SunOS	Open	cocker
Sun 4/670	SunOS	Open	collie
Sun 4/670	SunOS	Open	pooh

* Special access rules apply.

Accessing Computing Machines through the ICN

This table shows how to access open machines on the ICN through MICOM lines, TCP/IP hosts, and DECnet hosts. Additional machines outside the ICN are accessible through TCP/IP and DECnet. To access any of these machines, except for LIS, you must first establish an ICN account, which includes obtaining an ICN password and registering as an ICN user (contact the CIC Customer Service Center for details).

Example: Suppose you want to access the REGISTER machine from MICOM. By referring to the table, you can see that the appropriate command to enter is TIG. Once you connect to the TIG, enter your ICN user number and password as prompted. At the TIG prompt (tig>) enter register and login to the register machine.

TO → / FROM ↓	Hosts reachable from MICOM Lines:(BETA, CCVAX, IOVAX, OFVAX, STORES, TYMNET, LIS)	TCP/IP Hosts: (BETA, CCVAX, IBM Cluster IOVAX, OFVAX, REGISTER, UNICOS, ACL Hosts, etc.)	DECnet Hosts: (BETA, CCVAX, IOVAX, OFVAX, etc.)
MICOM Lines	hostname	TIG TELNET hostname	TIG TELNET hostname SET HOST hostname
TCP/IP Hosts (e.g., TIG)	TELNET MICOM hostname	TELNET hostname	TELNET hostname SET HOST hostname or, from BETA DLOGIN hostname
DECnet Hosts	TELNET MICOM hostname	TELNET hostname	SET HOST hostname

Accessing the ICN through Dialup Modem

Dialup access to the ICN is available through the Terminal Internet Gateway (TIG). The TIG is a gateway to the internet and allows you to telnet to ICN machines as well as other machines. Configure your modem and terminal for 8 bit, no parity, one stop bit. Based on your modem, select the appropriate number listed in the table to dial into the TIG. Then enter your ICN user number and password as prompted. At the TIG prompt (tig>) enter a machine name or IP address.

Report problems to the Network Control Center at 667-7423 Monday through Friday, 6 am to 6 pm or at 667-4585 during non-business hours.

Type of Access	Phone Numbers
Microcom Modems from 300 to 28,800 b/s	(505) 667-9020, 9021, 9022, 9023 (Number of Lines: 16) (800) 443-1461 (Number of Lines: 10)
Microcom Modems from 300 to 14,400 b/s	(505) 667- 9024 and 9025 (Number of Lines: 48)

Note: Use the next phone number if the first does not answer properly.

Note: The 800 number will only work if you have set the default charge code on the register.lanl.gov machine using the register utility.

Revised June 1995

LANL Research Library Training

The LANL Research Library provides training for using its specialized databases. Training sessions begin at times indicated below. Classes are scheduled for half an hour, except for "MELVYL" which is 45 minutes and "Information Resources on the Internet via Gopher/WWW" which is two hours. Space is limited to 8 per session. Classes are free, but you must pre-register by calling the Research Desk at 7-5809 or sending E-mail to ref@lanl.gov; no registration required for the "Library Orientations" class. Special classes and orientations can also be arranged.

Date	(Time)	Subject Matter
7-5-95	(11:00 a.m.)	Business Sources on the WWW*
7-5-95	(1:00 p.m.)	Chemical Resources
7-6-95	(1:00 p.m.)	Commercial Information for Patent Applications
7-10-95	(1:00 p.m.)	Physics & Weapons Resources
7-11-95	(1:00 p.m.)	Science Citation Index
7-12-95	(11:00 a.m.)	MELVYL (UC databases)
7-12-95	(1:00 p.m.)	Library Orientation
7-13-95	(1:00 p.m.)	GeoRef (Geology Literature, 1785-present)
7-18-95	(1:00 p.m.)	Engineering & Materials Resources
7-19-95	(11:00 a.m.)	Science Sources on the WWW*
7-19-95	(1:00 p.m.)	Bioscience & Biotechnology Resources
7-20-95	(1:00 p.m.)	Math/Sci (Mathematics & Computer Science)
7-25-95	(1:00 p.m.)	Commercial Information for Patent Applications
7-26-95	(11:00 a.m.)	MELVYL (UC databases)
7-27-95	(10:00 a.m.)	Information Sources on the Internet via Gopher/WWW
7-27-95	(1:00 p.m.)	Science Citation Index

* Requires working knowledge of a Web browser.

Lab-Wide Systems Training

The Customer Service Group (CIC-6) offers training for users of Laboratory information systems. The CIC-6 courses offer training for a variety of personnel including property administrators, group secretaries, training coordinators, budget analysts, group leaders, or anyone needing to access training records, property records, costs, employee information, travel, chemical inventories, etc. Refer to the table below and on the following pages for specific information about courses currently offered.

Course Registration

You must have a valid "A" or "U" level ICN password before taking any of the courses shown in the table. To register for a course, call CIC-6 Training, Development, and Coordination section at 667-9444 or send E-mail to classes@lanl.gov. You will be sent a registration form to be completed and returned.

Course Title	Date	Time	Cost	Course Number
ALL-IN-ONE Basic Electronic Messaging	**Scheduled Upon Request**		**$410**	**Course #6882**
	Participants receive hands-on instruction to create, read, and print electronic mail. Participants also learn how to edit mail, create distribution lists, send mail to a FAX machine, and grant mail access to others. Prerequisite: an ICN password and an account on the OFVAX.			
Automated Chemical Inventory System (ACIS):	**Scheduled Upon Request**		**$410**	**Course #7480**
	Participants receive hands-on instruction to update the status (end-user,location, quantity) of chemical containers. Participants will also learn to generate chemical inventory reports by chemical name, end-user, location, and organization.			
Budget Computing System (BUCS):	**7/18/95**	**8:30 - 12:00**	**$410**	**Course #3527**
	This training is an introduction to the Budget Computing System (BUCS). Students practice generating "quick reports" and reports requiring parameter files. An introduction and demonstration of (no "hands-on") allocating and forecasting procedures are given during the three-hour session.			
Directory Information System (DIS):	**Scheduled Upon Request**		**$410**	**Course #7072**
	Lab-wide customers responsible for maintaining the Laboratory directory in the Employee Information System will receive hands-on instruction to update Laboratory employees, update and add non-Laboratory employees, retrieve location and address information for any employee, and print reports.			
Employee Development System - Basic Training (EDS I):	**7/12/95**	**8:30 - 12:00**	**$410**	**Course #5289**
	The course provides hands-on instruction to request course enrollment, use the on-line course catalog, retrieve training transcripts, and assign EDS authorities. The student will learn to create courses, add students to the courses, and generate several training reports.			
Employee Development System - Training Plans (EDS II):	**7/26/95**	**8:30 - 12:00**	**$410**	**Course #7155**
	Participants receive hands-on instruction to create and maintain training plans, assign assignment codes, and generate training plan reports. Attendees must have prior training in the Employee Development System (course #5289).			
Eudora Electronic Mail for Macintosh Users	**7/27/95**	**1:30–3:30**	**$205**	**Course #9762**
	This class is a hands-on class that teaches the participant how to use Eudora software to create, send, receive, and edit electronic mail messages. In addition to these procedures, the participant will learn what related settings mean and how to configure the system to meet his or her individual needs.			

Course Title	Date	Time	Cost	Course Number
Eudora Electronic Mail for PC Users	**7/6/95**	**8:30 - 10:30**	**$205**	**Course #9763**
	This is a hands-on class that teaches the participant how to use Eudora software to create, send, receive, and edit electronic mail messages. In addition to these procedures, the participant will learn what related settings mean and how to configure the system to meet his or her individual needs.			
Facilities Project Information/Work Orders (FPI/WO):	**Scheduled Upon Request**		**$410**	**Course #6996**
	Lab-wide users with a need to view the status of work orders and tickets in their organizations will receive hands-on instruction to request, print, and review work order, ticket and project summary information reports.			
Financial Management Information System (FMIS):	**7/11/95**	**8:30 - 12:00**	**$410**	**Course #8338**
	Participants receive hands-on instruction to "explode" and "transfer" through the costs, allocations, and outstanding commitments screens. In addition, participants will create/review reports, access the Information Manager Utility for printing reports, and learn how to assign authorities in the system.			
Hazardous Materials Transfer Tracking System for Nonradioactive Material (HMTTS/NRAM):	**Scheduled upon request**		**$410**	**Course # 7907**
	Participants receive hands-on instruction to create, update, and print the non-RAM Hazardous Materials Transfer Form (HMTF). Attendees must have completed "Completing the HMTF for Non-RAM," course #7512, sponsored by HS-8.			
Hazardous Materials Transfer Tracking System for Radioactive Material (HMTTS/RAM):	**Scheduled Upon Request**		**$410**	**Course #7993**
	Participants receive hands-on instruction to create, update, and print the Radioactive Materials Transfer Form (RMTF). Information about the non-RAM Hazardous Materials Transfer Form (HMTF) is included. This course is appropriate for people who fill out both RAM and Non-RAM forms. Attendees must have completed "Completing the RMTF," course #7517, sponsored by HS-8.			
Introduction to LANL Information Systems:	**7/14/95**	**8:30 - 11:30**	**No Fee**	**Course #10118**
	This three-hour class is a hands-on introduction to the information systems available to Laboratory-wide users. The participants will become acquainted with Lab-wide information systems such as TRIPS and Stores, Electronic Mail, and Netscape (an interface to Laboratory information).			
Key/Core System	**7/12/95**	**1:30 - 3:30**	**$205**	**Course #10179**
	Key custodians and alternate key custodians receive hands-on instruction to add, update, and delete key and padlock information, and view assignment information and request reports. Students will also learn how to request key inventory notifications. Students must be a key custodian or alternate and have an ICN password.			
Lotus Notes Basic Concepts	**7/13/95**	**8:30–12:00**	**$410**	**Course #9917**
	This class provides hands-on instruction for Mac and PC users to use Lotus Notes software to create and send E-mail memos; fax documents; search databases; create filters, nicknames, banners, and doclinks; set defaults; and use multiple address books. In addition, participants learn how to use the memo, meetings, and discussion databases.			
On-Line Forms	**7/11/95**	**1:00 - 4:30**	**$410**	**Course #9756**
	Participants will learn to use Mosaic software to access Lab-wide information and forms. Using Jetform Filler software, participants will access, complete, and print forms such as the "ICN Validation Request," "Visitor Request for Unclassified Visits to Security Areas," and "Request for Quotation."			

Course Title	Date	Time	Cost	Course Number
Property Accounting, Inventory, and Reporting System (Advanced)	**7/19/95**	**8:30–12:00**	**$410**	**Course #9918**
	This course will include a refresher of PAIRS, advanced techniques and tips, explanation of the notification system, and report capabilities. Swap Shop, Loan Out information, and support tables will be discusses. Participants should already have a basic understanding of and know how to use PAIRS.			
Secretarial/Contract Services (SE):	**7/25/95**	**8:30–12:00**	**$410**	**Course #7481**
	This class provides hands-on instruction for creating secretarial requests for temporary services, entering time for technical and nontechnical contract employees, and creating reports using the Information Manager Utility. The students will also learn how to review notifications and approve attendance. A training database will be used for the class.			
Signature Authority System (SAS):	**7/18/95**	**1:15 - 4:45**	**No Fee**	**Course #7582**
	Managers or their designees receive instruction to assign, view, and change signature authorities (purchase request, chemical purchase, and handling hazardous material). Participants will also learn how to generate and print authority reports for their organizations.			
STORES:	**Scheduled upon request**		**$410**	**Course #3529**
	Participants receive hands-on instruction to search for an item in the on-line catalog by key word, part number, or exact name. Participants learn how to select items from the catalog, and place, change and cancel an order. Several methods for reviewing orders are also taught including reviewing an order in detail, scanning all orders, and reviewing back-orders.			
Travel Reporting Information Planning System (TRIPS):	**Scheduled upon request**		**$410**	**Course #4369**
	Class participants receive hands-on instruction to prepare travel requests (TRs) on-line and learn the print, revise, and cancel options. The participants also learn how to use the on-line approval function. The various reports available in TRIPS-II are reviewed.			
Introduction to the Internet: Beginning Netscape	**7/13/95**	**1:00 – 3:00**	**$205**	**Course #10961**
	Students gain basic understanding of the Internet and the World Wide Web and the use of Netscape as a browser to surf the Net. Topics covered are both Laboratory sites and open sites, along with practical uses of the Internet.			

CIC Computing Classes

CIC offers a variety of computing courses for the professional development of Laboratory employees. The courses listed in Table 1 will meet at the time and the date shown. The date for courses in Table 2 are not known at this time.

Course Registration

To register: (1) check the box beside the appropriate course, (2) complete the Enrollment Information section below, and (3) follow the mailing instructions on the back of this form. Submittal of a Course Registration form does not guarantee participation in an advertised class, but it is the only way to get into the queue for notification of upcoming classes. Classes are conducted in a secure area unless noted; uncleared participants require escorts. Call the Training Coordinator at 667-9399 for more information.

Table 1 Courses with confirmed time and date

	COURSE TITLE	INSTRUCTOR	COST	DATES
☐	Fortran 90: An Overview	Walt Brainerd, President, Unicomp, Inc.	$300-$425	7/24/95
☐	Fortran 90: Training	Walt Brainerd, President, Unicomp, Inc.	$1275-$1775	9/25/95 through 9/28/95
☐	UNIX (Beginning)	Ted Spitzmiller & Jeffrey Johnson	$810	9/11/95 through 9/15/95
☐	Visualizing Your Data with AVS	North Carolina Supercomputing Center personnel	$1,014.50–$1,367.50	7/25/95 through 7/26/95
☐	Writing AVS Modules	North Carolina Supercomputing Center personnel	$1,14.50–$1,367.50	7/27/95 through 7/28/95

Table 2 Courses with date to be arranged (TBA)

	COURSE TITLE	INSTRUCTOR	COST	DATES
☐	SUN Solaris 1.X (SunOS 4.X) Advanced System Administration	Sun Microsystems Expert	$1750-$2000	TBA (a 4.5-day class)
☐	SUN Solaris 2.X System Administration	Sun Microsystems Expert	$1750-$2000	TBA (a 5-day class)

Note: Detailed course descriptions for classes listed in Table 1 are provided on the following pages.

cut along dashed line

Enrollment Information

Name _____

Phone _____ Z-Number _____

Group _____ Mail Stop _____

Program Code* _____ Cost Code* _____

Group Leader Signature _____

****Enter program code and cost code for all courses. If you need to withdraw from a class fewer than 5 working days before the class is scheduled to begin, your group will still be charged. Substitutes may be sent, but please let the CIC Division Training, Development, and Coordination Office (667-9399) know who your substitute will be.***

Do Not Staple
Fold on This Line First

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 88 LOS ALAMOS NM

POSTAGE WILL BE PAID BY THE ADDRESSEE

MAIL STOP B296
CIC DIVISION TRAINING DEVELOPMENT
AND COORDINATION TEAM
LOS ALAMOS NATIONAL LABORATORY
PO BOX 1663
LOS ALAMOS NM 87544-9916

Do Not Staple, Seal with Tape
Fold Here

Fortran 90: An Overview

Prerequisite: Competency with Fortran 77.

Location: CIC-Division Lecture Room, TA-3, SM-200, Room 256 (secure area).

Enrollment: Minimum 10, Maximum 40.

Audience: Individuals who are using or will be using the ANSI standard Fortran 90 in the course of their business.

Topics include: New source form; Array Features; Derived Types; New I/O Features; New Control Structures; Pointers; Modules; Recursion; Precision; Data Structures; Interfaces.

Fortran 90: Training

Prerequisites: Competency in Fortran 77 and access to a Fortran 90 compiler following class. Access to ICN computer with Fortran 90 compiler.

Location: CIC-Secure Classroom, TA-3, SM-200, Room 210 (secure area).

Enrollment: Minimum 10, Maximum 16.

Audience: Individuals who are using or will be using the ANSI standard Fortran 90 in the course of their business.

Topics: History/Overview/New Features; Procedures; Array Processing; Using Character Data; Pointers; Input/Output; and Language Architecture.

Note: All lecture topics will be punctuated with hands-on laboratory examples and opportunities for problem practice.Note: HP will supply 8 HP systems and associated software for laboratory practice.

UNIX (Beginning)

Prerequisite: Familiarity with a UNIX workstation.

Location: CIC-Division Classroom, TA-3, SM-200, Room 210 (secure area).

Enrollment: Minimum 8, Maximum 10.

Topics: Overview of the Workstation environment; Getting Started; The UNIX File System; Manipulating Files; Customizing Your Environment; The C-Shell; Editing and Writing with vi; Using the Network; Discussing NFS and NIS; Using basic system status commands; Startup and shutdown procedures; Using tar.

Beginning UNIX—This course has been restructured to address generic UNIX information. There is no longer a focus on Sun operating systems and tools. Additional topics are being added. This course will probably be offered on a quarterly basis.

Visualizing Your Data with AVS

Prerequisite: Familiarity with UNIX and X Windows

Location: CIC-CTI Classroom, TA-3, SM-200, Room 115

Enrollment: Minimum 10, Maximum 15

Audience: Individuals who wish to visualize data using Application Visualization System (AVS 5.0); may bring own data sets

Topics: Introduction to Visualization; Introduction to AVS: Background, Architecture, Examples, International AVS Center, and Supported Hardware; Introduction to Geometry View, Introduction to AVS Data Types: Primitive, Field, Geometry, Image, UCD, and Volume; Commonly Used Modules/Networks; Advanced Network Editor; Graph/Data/Image Viewers; Importing Data into AVS; Strategies and Data File Formats; Commonly Used Data Input Modules; and, if attendees wish, Animation, Animation Modules and CLI Interface.

Writing AVS

Prerequisite: Visualizing Your Data with AVS, or equivalent experience, UNIX and X Windows familiarity, C (preferred) or FORTRAN

Location: CIC-CTI Classroom, TA-3, SM 200, Room 115

Enrollment: Minimum 10, Maximum 40

Audience: Individuals who wish to create their own customized AVS 5.0 modules.

Topics: AVS Data Types: Primitive, Field, Geometry, UCD, and Color map; Module Writing I: Module concepts, Writing a subroutine module, and C and FORTRAN; Module Writing II: Examples, Debugging modules, and Co-routines; Module Generator: Module Structure and Options, I/O, Parameter types, and Widgets; and Module Development: Macro modules,

ICNchanges Contents

Change Control for July 1995

Schedule for Change Control

Date	Activity
July 5 (First Wednesday)	New or changed software is available in experimental (**X**) files on CFS for testing. This initial testing period is for uncovering problems in the software before the software is put into production. If you find a problem, please call the ICN Consulting Office at (505) 667-5746.
July 11 (Second Tuesday)	The changes become production version on • Machine **rho** (UNICOS) • Distributed processor **beta** (ULTRIX) • Distributed processor **ccvax** (VMS)
July 18 (Third Tuesday)	If no problems are reported to the ICN Consulting Office (505) 667-5746, changes are installed on • Machine **gamma** (UNICOS)
STOP	The Department of Energy (DoE) has frozen software changes to the machines in the secure network. **X** files and executables will be placed on CFS as usual and users are encouraged to test these files. Executables will be installed in a staggered fashion when the freeze is lifted. The date for lifting the freeze is unknown. • Machines **delta**, **epsilon**, **tau**, and **zeta**

Note: A stop sign in front of a title is significant:

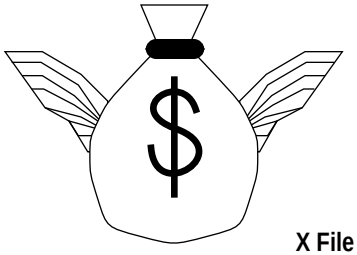
STOP **= incompatible changes; please read!**

Changes

STOP COST (UNICOS)

Function

Produces a monthly summary of CCF charges for a specified user, group, program, division, or charge code.



Change

The user, group, program, and division options now support multiple entries. For example, if "group" is chosen, one may enter up to 10 cost center (or group) designations. This change was implemented because, since the Laboratory re-organization of last year, many organizational groups are using more than one cost center designation for CCF charging. The extended options permit a single COST run to return the charges attributable to several cost centers.

X File Access

On CFS as: **/ccx/unicos/bin7/costx** for Machine Rho.
On CFS as: **/ccx/unicos/bin7c/costx** for Machine Gamma.
On CFS as: **/ccxs/unicos/bin7/costx** for Machines Delta and Epsilon.
On CFS as: **/ccxs/unicos/bin8/costx** for Machine Zeta.

Online Documentation

To display the man page (dated 7/95), enter: **man cost**

To display the built-in help package, enter: **cost -h**

System Information

This section provides information and a record of changes to the ICN operating systems. When changes are announced here, they may already be included in the production versions of the indicated operating systems and machines. Most of the changes are strictly internal to the systems and should not affect users. However, if you detect a problem, please call the ICN Consulting Office at (505) 667-5746, or send electronic mail to **consult@lanl.gov.**

STOP Machine Gamma (UNICOS)

Machine Gamma's UNICOS operating system will be upgraded to Version 8.0.3.4 on July 16, 1995, at 8:00 am. Many binaries will run without problem; however, because of some system call changes we advise all users to recompile and relink their codes. The run-time environment will also be upgraded. The following is a list of the compilers and their versions that will be installed with this upgrade.

cf77	Version 6.0.4.10
f90	Version 1.0.2.5
C++	Version 1.0.1.0
cc	Version 4.0.3.8
craytools	Version 1.3.1.1
craylibs	Version 1.2.0.3

For more information, contact Ray Miller at (505) 665-3222 or e-mail **rdm@lanl.gov** or contact the ICN Consultants at (505) 667-5746 or e-mail **consult@lanl.gov**.

Documentation

New and Updated Man Pages

The following online information has been added or updated.

UNICOS Man Pages

To access a UNICOS man page, enter: **man** *command_name*, where *command_name* is the name of the command, library, routine, or utility whose man page you wish to view.

Man Page	Description
cost	COST produces a single text-mode output file that contains the total CCF charges for a user (or group, or program, or division, or charge code). COST prompts for four items of user input. The charges may be generated for one or more months or for one or more years (either calendar or fiscal).

To create ASCII files of the UNICOS man pages, use the following command to remove the special characters for bold and underlining:

UNICOS 7.0 and 8.0: **man** *command_name* **| col -bx >** *filename*

Barbara Ritchie (**bxr@lanl.gov)**, (505) 667-7275
Communication Arts and Services (CIC-1)

Information About Change Control

ICN Change Control is the set of procedures that coordinates changes in the ICN to ensure quality control and smooth operation and to avoid introducing additional problems. In an environment as dynamic as the ICN, control must be imposed on the scope and timing of changes that involve many components. Please report any problems as soon as they occur by calling the ICN Consulting Office at (505) 667-5746.

The following CFS nodes are used for software that is maintained or announced through Change Control procedures. The files under **/ccx(s)/unicos** are deleted the last Friday of each month because these experimental versions become the production versions on all machines by the third Tuesday of the month. The other nodes keep the most recent versions of their respective software.

Non-UNICOS Systems	/*cc-node*/*platform*/*filename*
UNICOS Systems	/*cc-node*/**unicos**/*type*/*filename*

Where *cc-node* is:

ccx	Open change-control root node examples: **/ccx/mac/ppages** **/ccx/unicos/bin7/ppagesx** **/ccx/unicos/ubin7c/tedix** **/ccx/vax/ppages.bak**
ccxs	Secure change-control root node examples: **/ccxs/unicos/lib8/libcftlib.a** **/ccxs/sun/ppages.tar**

Where *platform* is:	Where *filenames* are:
alpha_osf	tar files for DEC Alpha OSF/1 machines
alpha_vms	backup save sets for DEC Alpha VMS machines
convex	tar files for Convex machines
dec_risc	tar files for DEC RISC workstations
dos	executables (**.exe**) for PC/DOS machines
hp	tar files for Hewlett-Packard workstations
ibm_rs6000	tar files for IBM RS6000 workstations
mac	binhex (**.hqx**) or MacBinary (**.mbin**) files for Macintosh computers
next	tar files for NeXT workstations
sgi	tar files for Silicon Graphics workstations
solaris	tar files for Sun Solaris workstations
sun	tar files for Sun OS workstation
ultrix	current executables to test on Beta
unicos	executable **X** files or library files for current Change Control cycle
vax	backup-save-sets for VAX/VMS systems

Where *type* is:

bin#	binary files for version # of the operating system; note that an "x" is appended to the binary filenames.
lib#	library files for version # of the operating system
u	user-supported executable files (**ex**, **ubin**, **ulib**, **udata**, **usys**)

If problems are discovered during the cycle, defective hardware or software is corrected, replaced, removed, or backed off.

Online Information

You can access complete online information about Change Control by using a web browser.You may contact the Customer Service Center at (505) 665-4444 or e-mail **cichelp@lanl.gov** for assistance.

From the LANL Home Page (**http://www.lanl.gov/welcome.htm**l) select Computing at LANL (**http://www.lanl.gov/computer-information**). Select the following series of options from the menu:

- BITS: Computing & Communications News
  - Connect directly to the BITS Home Page

    http://www.lanl.gov/computer-information/ComputingNews/bits_homepage.html
- Scroll down the Home Page to BITS: ICNchanges
  You will get a new menu. Select the next menu that reflects your needs.
  - Keyword Search of all ICNchanges (?)
  - Current Issue
  - 1995 Archives through 1991 Archives

Or from the LANL Home Page/Computing at LANL. Scroll down and select ICNchanges (**http://www.lanl.gov/computer-information/ICNchanges**):

- ICNchanges
  You will get a new menu. Select the next menu that reflects your needs.
  - Keyword Search of all ICNchanges (?)
  - Current (*month year*)
  - 1995 Archives through 1991 Archives
  - For example, select "Current July 1995" to get a list of the articles for the current month's Change Control. You will get a new menu. Select the next menu that reflects your needs.

    BITS: ICNchanges - ASCII Version

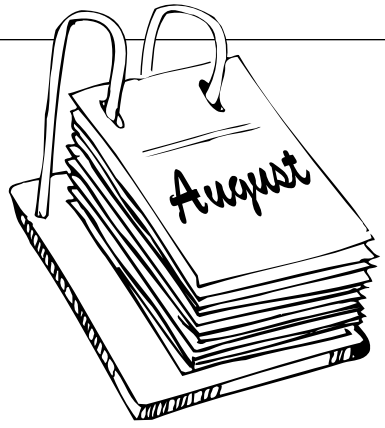
    BITS: ICNchanges - Acrobat Version

    BITS: ICNchanges - PostScript Version

*Barbara Ritchie (**bxr@lanl.gov**), (505) 667-7275*
Communication Arts and Services (CIC-1)

AUGUST DEADLINE

The deadline for articles for the August 1995 Change Control is 8:00 am. Monday, July 17, 1995. Please submit items to **bulletin@lanl.gov.**



CCF Machine Availability and Downtime

Machine Name(s)	Machine Type	Operating System	Security Partition	System Availability (May 1995)	Scheduled Downtime*
delta	CRAY Y-MP8/8-128	UNICOS 7.0	Secure	99.3%	July 5 — 0400-0700
epsilon	CRAY Y-MP8/8-128	UNICOS 7.0	Secure	98.6%	July 19— 0400-0700
rho	CRAY Y-MP8/8-64	UNICOS 7.0	Open	99.5%	July 19— 0400-0700
zeta	CRAY Y-MP8/2-64	UNICOS 8.0	Secure	99.3%	July 26 — 0400-0700
gamma	CRAY Y-MP/M98-82048	UNICOS 7c	Open	97.8%	July 26 — 0400-0700
tau**	CRAY T3D MC512-8	MAX 1.2	Secure	97.3%	July 5 — 0400-0700
	CRAY Y-MP4I/464-2	UNICOS 8.0			
pi**	CRAY Y-MP EL92/1-256	UNICOS 8.0	Open	100%	
cluster	IBM Workstation Cluster	AIX	Open		
beta	VAX 6320	ULTRIX	Open		
CCVAX	VAX 6410	VMS	Open		
OFVAX	VAX 6410	VMS	Open		
canyon	Thinking Machines Corp. CM-200	SunOS	Secure		
tres	Thinking Machines Corp. CM-200	SunOS	Secure		

* Additional downtime for the Cray machines may occur as a result of Network Dedicated Systems Time (NDST). The schedule for possible NDST is from 0600-0700 Mountain Time, Monday through Friday. Should NDST become necessary, a message listing the scheduled downtime will be broadcast on the applicable machines before the actual downtime occurs. For additional information contact the shift supervisor at (505) 667-4584. All times listed are Mountain Time.

** Access restricted.

Questions About Announced Changes?

Notice of all scheduled downtime will be broadcast on the machine before the downtime. For up-to-date machine status and scheduled downtime call: CCF Status Message (505) 667-5588.

Publication Information

ICNchanges Editor/Publication Coordinator
Barbara Ritchie (CIC-1)
Mail Stop B295
Telephone (505) 667-7275

Change Control Coordinator
Marjorie Sigler (Johnston) (CIC-6)
Mail Stop B252
Telephone (505) 667-7309

DSC Macintosh Software Order Form

All software listed below, except Netscape, is available at no cost (Netscape costs $30.00). To order software, fill in the blanks below, check the software you would like to have, and mail this form to

Free Software
Desktop Support Center (CIC-2) MS D445

Name _____ Group _____
Mail Stop _____ Z-Number _____
Cost Code _____ Program Code _____ Account Package _____

Please send the correct number of replacement high-density diskettes with your request. If you don't send any disks, we will send you the software with the understanding that you will return the diskettes after you copy the software.

_____ **FREEWARE DISKETTE** (Include one high-density diskette.)
This diskette contains the following software:

Alias Finder: Quickly finds the original of an alias when the alias is dragged on top of the Alias Finder icon.
Disinfectant: Virus protection for the Macintosh.
Disk Copy: Creates copies of diskettes using one floppy drive.
SCSI Probe: Shows connected devices on the SCSI bus.
StuffIt Expander: Unstuffs BinHex 4.0, StuffIt, and other types of compressed files.

Note: The following two applications come with System 7.5:

Extensions Manager: Allows selection of which INITs to load.
SuperClock: Puts a clock in the upper right corner of your Macintosh.

_____ **INTERNET DISKETTE** (Include one high-density diskette.)
This diskette contains the following software:

Fetch: Easy-to-use for FTPing files from FTP archives.
NCSA Telnet: Telnet application
TurboGopher: Gopher client application for the Macintosh.
StuffIt Expander: Unstuffs BinHex 4.0 and other types of compressed files.

_____ **MACINTOSH SYSTEM 7.5** (Include nine high-density diskettes.)
Indicate number of systems on which this System 7.5 will be used:_____

Note: System 7.5 Manuals are available for $7.50. Enter your accounting information above. CD-ROM version available for free loan. Call 5-1361 for details.

_____ **SYSTEM 7.5 POWERTALK AND QUICKDRAW GX.** (Include four high-density diskettes.)
Note: We recommend that you do not install these parts of System 7.5 unless you have a specific need to do so.

_____ **SYSTEM 7.5 UPDATE, VERSION 1.0** (Include 5 high-density diskettes.) Updates System 7.5, fixes some bugs, speeds up file-sharing, new printer software, etc. Includes Network SOftware Installer 1.5.

_____ **NETSCAPE** (Include one high-density diskette.)
Netscape is a commercial web browser. Even though it is available on the Internet, it is not free. CIC-2 has bought 1,000 copies of Netscape for a cost of $30.00 per copy. Enter your accounting information above. We will include a license certificate indicating your purchase. If you do not need a diskette copy of Netscape, check below.

____Do not need a diskette. I already have a copy and just need the license.

_____ **ACROBAT READER** (Include one high-density diskette.)
Multi-platform document viewer. Used with viewing "pdf" documents on the LANL web server and fast becoming an Internet standard.

_____ **ACROBAT EXCHANGE** (Include four high-density diskettes.)
An enhanced version of the Acrobat Reader. Allows you to create and annotate "pdf" files as well as read them. Note: CIC Division bought a license of 1,000 copies of Acrobat Exchange. We do not charge for this software but can only distribute 1,000 copies of it (both Mac and PC).

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DSC IBM Software Order Form

All software listed below, except Netscape, is available at no cost (Netscape costs $30.00). To order software, fill in the blanks below, check the software you would like to have, and mail this form to

Free Software
Desktop Support Center (CIC-2) MS D445

Name _____Group _____
Mail Stop _____ Z-Number _____
Cost Code _____ Program Code _____ Account Package _____

Please send the correct number of replacement high-density diskettes with your request. If you don't send any disks, we will send you the software with the understanding that you will return the diskettes after you copy the software.

_____ **DATA PHYSICIAN** Virus detection programs. (Include one high-density diskette.)

_____ **INTERNET DISKETTE** (Include one high-density diskette.)

lview31	A gif/bmp/pic viewer.
tsyncl>8	Set up your pc clock via LANL ftp timeserver automatically.
WS_Ftp	Super ftp client.
WS_Ping	Super ping and nslookup.
pkunzip	File decompression program.

_____ **NETSCAPE** (Include one high-density diskette.)
Netscape is a commercial web browser. Even though it is available on the Internet, it is not free. CIC-2 has bought 1,000 copies of Netscape for a cost of $30.00 per copy. Enter your accounting information above. We will include a license certificate indicating your purchase. If you do not need a diskette copy of Netscape, check below.
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An enhanced version of the Acrobat Reader. Allows you to create and annotate "pdf" files as well as read them. Note: CIC Division bought a license of 1,000 copies of Acrobat Exchange. We do not charge for this software but can only distribute 1,000 copies of it (both Mac and PC). Indicate the number of systems on which this copy of Acrobat Exchange will be used:___

_____ **JETFORM FILLER** (Include five high-density diskettes.)
Form-based document software for use with the LANL's web server on-line forms. Note: CIC-13 bought a license of 2,000 copies of Jetform Filler. We do not charge for this software but can only distribute 2,000 copies of it (Mac version available soon).
Indicate the number of systems on which this copy of Jetform Filler will be used:___

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INTEGRATED COMPUTING NETWORK (ICN) VALIDATION REQUEST

To access ICN Computing resources, please complete all parts of this form that apply to you, including "Special Requirements."

If you have **questions**: Call: (505) 665-1805
E-mail: validate@lanl.gov

Mail your completed application to:
ICN Password Office (PWO)
Mail Stop: B271
Los Alamos National Laboratory
Los Alamos, NM 87545

All Laboratory computers, computing systems, and their associated communication systems are for official business only. By completing this request, users agree not to misuse the ICN. The Laboratory has the responsibility and authority to periodically audit user files.

Owner Information

Z-Number (if you have one)	PWO Use Only	Name (last, first, middle initial)
LANL Group	LANL Mail Stop	Citizenship (Foreign National see "Special Requirements-Foreign National")
Phone Number	Cost Center	Program Code

Check LANL affiliation:

- ☐ LANL employee
- ☐ Contractor _____ (specify contract company)
- ☐ Consultant, VSM, associate
- ☐ External user_____ (specify employer)
- ☐ Other (specify)_____

Send password / smartcard to:

☐ Mail Stop or ☐ Mail to address indicated below

Name / Organization

Address

City, State, Zip Code

Access Check access method and needed partitions:

Access method: ☐ ICN Password ☐ Smartcard ☐ Both

☐ **Open** partition (e.g., email systems, open machines)

☐ **Administrative** partition (e.g., IA [BUCS, Stores, Travel], IB [EIS, FMIS, PAIRS])
If you are not a Q-cleared LANL employee, see required steps in section "Special Requirements-Administrative Partition," unless you already have Administrative access with an ICN password.

☐ **Secure** partition (i.e., secure machines)
Indicate level(s) of data to be processed:
- ☐ Unclassified
- ☐ Secret

I certify this person does require secure access:

Manager Signature (Group Leader or above) Date

NOTE: A Q-clearance is required. All classified computing must be performed within the Secure environment.

PWO Use Only

New ☐ Change ☐	Clearance Status	Processed	Lv	Smartcard Serial #
Comments:				

Form 1646 (1/95) Supersedes previous versions (rev. 1/25).

Continue

Special Requirements

Administrative Partition

(U.S. Citizens Only) — Lab-Wide Systems (e.g., IA [BUCS, Stores, Travel], IB [EIS, FMIS, PAIRS])

☐ Under 18 years of age

If you need to access Administrative systems, your group leader must provide a memo accepting responsibility for your actions and justifying your need for access. This memo is to accompany all forms taken to the security briefing (see "Contractor or Non-Q-Cleared") section below. You may not access the Secure Partition.

☐ Contractor or Non-Q-Cleared

Phone (505) 667-9444 to obtain Access Authorization packet.

Phone (505) 667-9153 to schedule a security briefing.

Bring all forms including this ICN Validation Request to the security briefing for approval.

Security Briefing Approval Signature	Date

☐ Foreign National

Attach a copy of Form 982 (REQUEST FOR UNCLASSIFIED VISIT OR ASSIGNMENT BY A FOREIGN NATIONAL) with all approval signatures. Be sure Box #11 of Form 982 is completed. If you are not a visitor/assignee under a LANL/DOE approved Visit / Assignment Request, attach written justification from your host Division Director describing your need to access the ICN.

Authorization (required)

Print Manager Name (Group Leader or above)	Manager Z-Number	Group
Manager Signature (Group Leader or above)	**Mail Stop**	**Date**

If you are NOT a LANL employee, obtain your LANL contact's signature in addition to the contact's manager's signature.

NOTE: LANL contacts are regular Laboratory employees. Contacts are responsible for obtaining annual re-authorizations, forwarding renewals, and notifying the ICN Password Office of changes in user or contact status.

Print LANL Contact Name	Contact Z-Number	Phone Number	Group
LANL Contact Signature		Mail Stop	Date

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INDEX

This index is organized according to keywords taken from the original titles of *BITS* articles. Keywords are listed in alphabetical order and the coverage of articles goes back one year from the date of the current issue.

Keywords	Title of BITS Article	Date	(Page)
Information Architecture (IA)	*The Los Alamos Information Architecture*	July '94	(1)
	I A: Announcing the Standards Development Process	Sept. '94	(8)
	Work Progresses on Information Architecture	Aug. '94	(4)
	Information Architecture Teams Forming	Nov. '94	(2)
	Information Architecture Sponsors Data Warehousing Study	Dec. '94	(1)
	IA Targets Infrastructure Services	Mar. '95	(12)
Kerberos	*Kerberos: Life after SIMP*	Aug. '94	(6)
LAICS (Los Alamos Integrated Communications System)	*LAICS Update: Interesting Facts about Your Phone Service*	Oct. '94	(3)
Library Without Walls	*Library Without Walls: Digital Library Developments at LANL's Research Library*	Apr. '95	(4)
Locally Developed Software	*Recommendations for Locally Developed Software Approved*	May '95	(4)
.LOGIN or .CSHRC [Shell Files]	*PAPER or PLASTIC? .LOGIN or .CSHRC?*	Nov. '94	(11)
Lotus Notes	*Lotus Notes: Enhancing Network Communications*	Mar. '95	(1)
Macintosh	*A Look at the Macintosh System 7.5*	Sept. '94	(13)
	Macintosh System 7.5 Follow-up	Oct. '94	(9)
Microsoft Word	*Upgrading to Microsoft Word 6.0*	Feb. '95	(14)
MPI (Message Passing Interface)	*Parallel Distributed Computing Team Supports MPI Message Passing Software*	Feb. '95	(10)
NERD	*NERD: Providing Automated Network Anomaly Detection and Notification*	June '95	(1)
Netscape	*Everything you need to know about Netscape at LANL*	Apr. '95	(11)
Network Licensed Software	*The Coming of Network Licensed Software*	Nov. '94	(13)
News Groups	*Access to Usenet News Groups is Changing*	Dec. '94	(7)
PAGES	*Large-Scale Printing Available through PAGES*	May '95	(1)
Paging	New Access Number for Off-Site Paging	Nov. '94	(1)
PC	*New IBM PC Products Available*	Oct. '94	(15)
Print Gateway	*Print Gateway Charges*	Feb.'95	(5)
PVM (parallel virtual machine)	*Distributed Computing Team Supports PVM Software and Initiates Parallel Tools Users' Group*	Nov. '94	(11)
	PVM 3.3 and XPVM Installed and Supported on the Open Cluster	Dec. '94	(13)
	PVM 3.3 Development Toolbox	Mar. '95	(4)
	Getting the Most out of PVM	June '95	(5)
Security	*Need Help with Computer Security?*	Dec. '94	(8)
	UNICOS Security Tidbits in the ICN2	Feb. '95	(11)
Smartcard	*What's So Smart about a Smartcard?*	Dec. '94	(6)
	Smartcards: They Keep Going	Feb. '95	(6)
Software Distribution	*Mac and PC Software Distribution at LANL*	Oct. '94	(12)
Sunrise	*Sunrise: Creating A Network-based Distributed, Media-rich Computing and Information Environment*	Feb. '95	(1)
Supercomputing	*Drastic Reduction in Supercomputing Recharge Rates!*	Dec. '94	(5)
Survey	*Desktop Software Site License Survey*	Oct. '94	(16)
Tatung	*Tatung: The New SPARC Workstation Standard*	Aug. '94	(1)
TeleMed	*TeleMed: Better Medicine through Sunrise Technologies*	Mar. '95	(8)
TRANSIMS	*TRANSIMS: Tools for Transportation Planning, Traffic Engineering, and Environmental Impact Analysis*	May '95	(6)
UNICOS	*What Mother Never Told You: UNICOS Programs and Scripts*	Dec. '94	(9)
	UNICOS Security Tidbits in the ICN2	Feb. '95	(11)
	UNICOS 8.0: Modifications to Purge Process	Mar. '95	(3)

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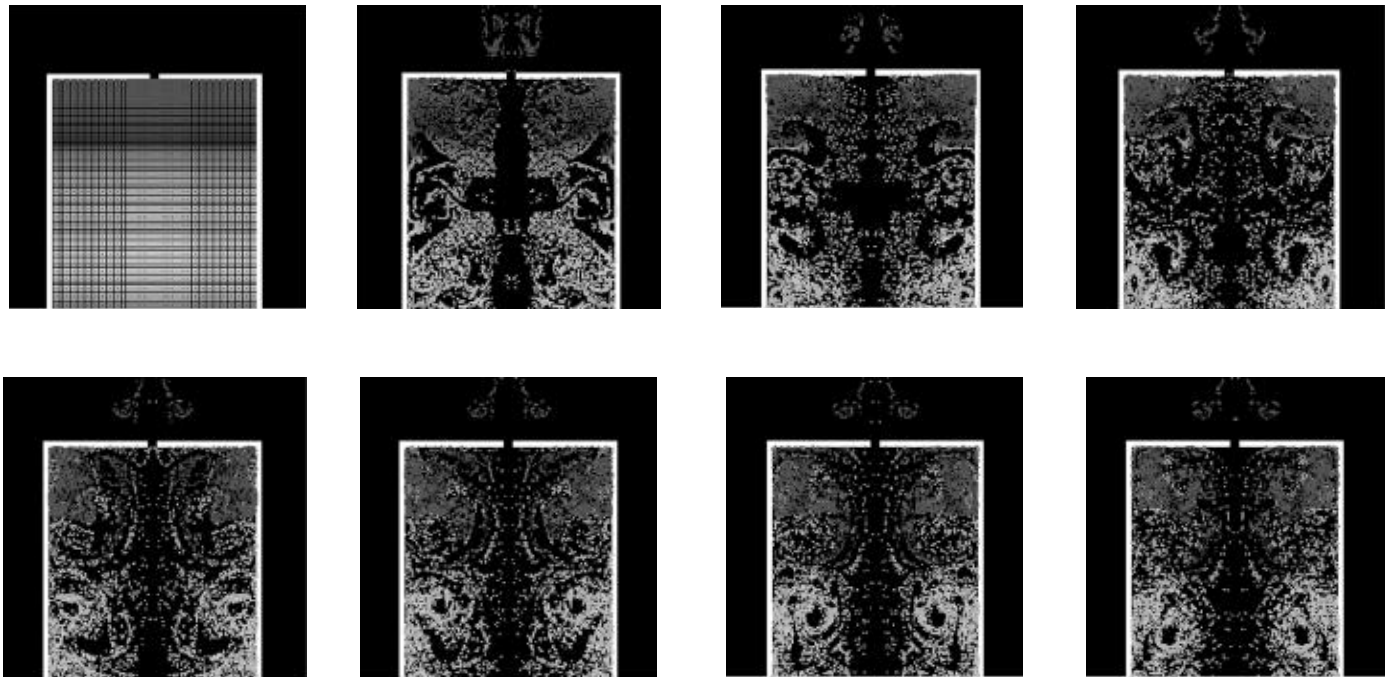

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